

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61C17/22 F16K15/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16K A61C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/201023 A1 (BARINAGA LOUIS C ET AL) 30 October 2003 (2003-10-30) paragraph '0037! - paragraph '0038! figures 11,12 -----	1-9
A	US 2002/090252 A1 (HALL SCOTT E ET AL) 11 July 2002 (2002-07-11) abstract; figures 5,6,8 -----	1-9
A	US 6 648 641 B1 (VILTRIO LOUIS JOHN ET AL) 18 November 2003 (2003-11-18) abstract; figures 5,6 -----	1-9
A	US 2002/108193 A1 (GRUBER PAUL) 15 August 2002 (2002-08-15) abstract; figure 2 -----	1-9



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the international search

26 January 2005

Date of mailing of the international search report

07/02/2005

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

IB2004/052738

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2003201023	A1	30-10-2003	NONE			
US 2002090252	A1	11-07-2002	US AU CN EP JP WO US US US	2002044817 A1 2495700 A 1351483 T 1143876 A1 2002534209 T 0041645 A1 6220772 B1 2004062591 A1 2002081138 A1		18-04-2002 01-08-2000 29-05-2002 17-10-2001 15-10-2002 20-07-2000 24-04-2001 01-04-2004 27-06-2002
US 6648641	B1	18-11-2003	AU AU CA CA CN CN EP EP JP JP MX MX TW WO WO US	3044402 A 5326501 A 2424268 A1 2424445 A1 1474672 T 1476314 T 1335678 A1 1335679 A1 2004516872 T 2004513744 T PA03004504 A PA03004505 A 514516 B 0241801 A1 0241802 A1 2003194678 A1		03-06-2002 03-06-2002 30-05-2002 30-05-2002 11-02-2004 18-02-2004 20-08-2003 20-08-2003 10-06-2004 13-05-2004 05-09-2003 05-09-2003 21-12-2002 30-05-2002 30-05-2002 16-10-2003
US 2002108193	A1	15-08-2002	CN EP EP WO WO JP JP US	1457289 T 1379194 A1 1363760 A1 02064056 A1 02064328 A1 2004518485 T 2004518490 T 2003037447 A1		19-11-2003 14-01-2004 26-11-2003 22-08-2002 22-08-2002 24-06-2004 24-06-2004 27-02-2003

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